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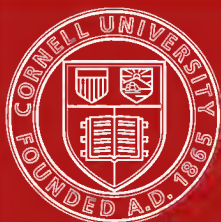
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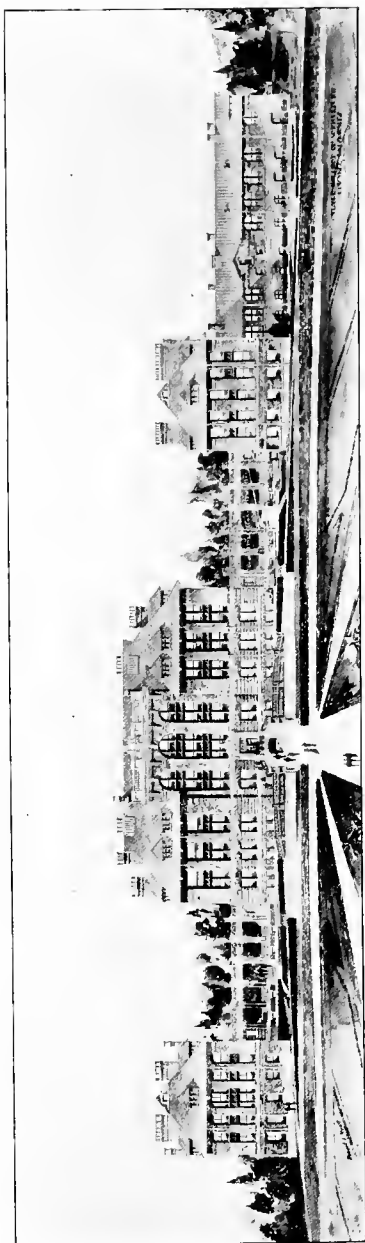
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THE NEW YORK STATE COLLEGE OF AGRICULTURE AT CORNELL UNIVERSITY

ADDRESSES

AT THE

DEDICATION OF THE BUILDINGS

OF THE

New York State College of Agriculture

APRIL 27, 1907

CORNELL UNIVERSITY
ITHACA, NEW YORK

1907

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ADDRESSES

PRESIDENT SCHURMAN : I have the honor of presenting the Governor of the State of New York—

Iustum et tenacem propositi virum
Non civium ardor prava iubentium,
Non voltus instantis tyranni
Mente quatit solida, neque Auster,
Dux inquieti turbidus Hadriae,
Nec fulminantis magna manus Iovis ;
Si fractus inlabatur orbis,
Impavidum ferient ruinae.

In spare moments during the last forty-eight hours, which have been more than full with multifarious and imperative engagements, I have made a translation of these stanzas from the third Ode of the Third Book of Horace, which, with apologies to the shades of Horace for my rash presumption, I now venture to read :

A just man of tenacious will,—
No party bent on doing ill,
No frown of tyrant boss or lord,
No yellow journal's windy word
His righteous purpose ere can move,—
Nor the big bolt that's hurled by Jove.
Mid chaos and dissolving bands
Unmoved and fearless, lo ! he stands.

Once our comrade in this University, always our friend, and now Governor of our State, Charles Evans Hughes.

ADDRESS OF GOVERNOR HUGHES

You have celebrated with fitting ceremony the Hundredth Anniversary of the birth of Ezra Cornell. Nothing could more suitably embody the spirit which animated him in the founding of Cornell University than this provision for instruction and experiment, for the spread of useful in-

formation, and for intelligent leadership in order to promote the agricultural interests of this State.

The progress of civilization is perhaps most strongly marked by the widening of the area of instruction and the diminution of failures due to untutored and unrelated effort, through the establishment of schools for proper training and for the communication under skilled direction of the lessons of experience. And the modern breadth of view with reference to scholastic purpose, and the rapid growth in appreciation by the people of the benefit of scientific instruction could have no more striking illustration than the establishment, under the auspices of the State, in contact with schools of liberal arts, of politics and of law, of this school of agriculture.

I am reminded of the occasion when, fifteen years ago, as a member of the staff of instruction of this University, I listened to the inaugural address of its new President. I remember well the mingled expressions of concern as to the wisdom of his policy and admiration at his courage—not to say audacity—in announcing it. Rarely has there been vouchsafed to any prophet a clearer vision or a more complete fulfillment of his prophecy. Among other things President Schurman then said: “From the very beginning Cornell University has paid special attention to the two subjects which more than any other vitally affect the interests of the majority of our people—I mean agriculture and veterinary science . . . We need an appropriation for a College of veterinary knowledge of at least \$40,000 a year . . . and at the same time liberal provision should be made for agriculture, including horticulture. The first and imperative need is that of a building large enough to house, along with the department of agriculture those of horticulture, entomology, and dairy husbandry The home of teachers and investigators, it should be made the living center of all the agricultural interests of the State. Students would come for the regular courses or for short winter courses; and those who could not leave their homes

might receive instruction by correspondence. Bulletins would be published giving results of investigations. . . . We should need at least \$200,000 for the building and then such appropriations as would make the work in it worthy of the vast agricultural resources and wealth of this imperial state."

All those who heard marvelled at his dream. But in 1894 a State Veterinary College was established, and an appropriation was made by the State for the construction and equipment of suitable buildings for its purposes. It has also received appropriations for its maintenance amounting to \$25,000 a year.

In 1904 the Legislature passed an act establishing a State College of Agriculture at Cornell University, and appropriated for the construction and equipment of its buildings the sum of \$250,000, and at the last session of the Legislature it received for its maintenance and for the promotion of agricultural knowledge through the State an appropriation of \$100,000.

We may pause to congratulate President Schurman, not only upon his foresight, but upon the sagacity and vigor which has enabled him to accomplish his purpose.

There are many engrossed in the great industrial activities of the State who fail to realize the importance of its agricultural interests. According to the last census New York led the states in the value of its dairy products, of its hay crop, of its vegetables, of its flowers and plants, and of its apple crop, while in the value of its fruit and orchard products it was second only to California. The value of its farm property is exceeded only in the case of three states. The State has no more important duty than to husband its agricultural interests.

Much has been done in recent years to improve the condition of the farmer. The rural free delivery has brought him in closer contact with his fellow citizens and with the forces which make for progress in the State. The improvement of the roads of the State will greatly facilitate his

access to markets. While he has the advantages of these external improvements, he has the opportunity of taking part in the important and efficient organization of the State Grange for the protection and advancement of his interests. The State Department of Agriculture has a most important function and among its other activities is now addressing itself to the very serious problem of farm labor. Its efforts have also facilitated the sale of abandoned farms.

But much remains to be accomplished. In the press of the questions incident to the congestion of population in our great cities we must not forget the demands of rural communities and must not fail to take advantage of every opportunity to promote the welfare of that important portion of our population, which, although not urban, has its own serious social and economic problems.

We need scientific instruction in matters pertaining to farming—instruction with reference to suitable farm machinery—with regard to the various matters which Director Bailey has aptly called “rural engineering”, and in the various subjects which relate to rural life. We need not only instruction and experimentation at this school, but the dissemination of its influence and the carrying to the people through the various forms of extension work of the information and the practical assistance and guidance which will help them in solving the problems of existence and in developing the agricultural resources of the State.

It is for these purposes that this school has been established. The statute provides: “The object of said College of Agriculture shall be to improve the agricultural methods of the State; to develop the agricultural resources of the State in the production of crops of all kinds; in the rearing and breeding of live-stock; in the manufacture of dairy and other products; in determining better methods of marketing and handling such products and in other ways; and to increase intelligence and elevate the standards of living in the rural districts.”

Under the Act of Administration, while these buildings and equipment are to remain the property of the State, Cornell University is entrusted with their custody and control and is authorized to administer this College, with authority to appoint investigators, teachers and other employees, to lay out lines of investigation, to prescribe the requirements of admission and the course of study and otherwise to exercise such power as may be needed for due administration.

This is a sacred trust. To your administration the State has committed one of the most important interests of the people, represented in the establishment of this school. It is not a school to be administered for the benefit of Cornell University, but it is a school to be administered by Cornell University for the benefit of the people. We may view its future with confidence as we recall the services rendered in the past by those connected with the agricultural work of this University, and I am sure it is gratifying to the people to know that the work is to continue under the immediate supervision of that accomplished director, Liberty Hyde Bailey, to whose ability and energy this institution owes so much. And through wise administration and through the benefits which will result from the knowledge this school will disseminate, and the fruitful experience it will record and communicate, Cornell University will be entitled to the respect and the gratitude which are the just due of the faithful execution of a public trust.

President Schurman :—On behalf of the State of New York, it is now my privilege and my agreeable duty to commit through you to Cornell University the custody and control of these buildings and property, constructed and set apart by the State for the New York State College of Agriculture, and through you to commit to Cornell University the administration of this college for the benefit of the people of the State. And in doing this I take pleasure in expressing my confidence in the administration of this trust

by Cornell University and my expectation that through this foundation the agricultural interests of the State will be notably advanced.

ACCEPTANCE BY PRESIDENT SCHURMAN

Governor Hughes :—In the name and on behalf of Cornell University I accept with a feeling of deep responsibility the trust which, on behalf of the State of New York, you have now committed to us. It will be not only my own aim, but the aim also of the Trustees of Cornell University and of the Faculty of the College of Agriculture to serve the State with the utmost diligence, zeal, and efficiency. It is our conviction that, by bringing the torch of science to bear upon the work of the farmer, Cornell University is at once fulfilling one of the highest functions open to a university and, at the same time and in consequence of this activity, it is facilitating and fructifying the oldest, the most fundamental and the healthfulest of human industries. We deeply appreciate the confidence which the State has shown in the management of this University by entrusting to us the administration of this State College of Agriculture, for which the Legislature has made such generous provision, and on behalf of the Trustees, of the Faculty of Agriculture, and indeed of all the Faculties of the University, I now solemnly pledge that Cornell University will do its utmost to prove worthy of this trust and to improve and elevate the agricultural interests of the State, for whose benefit the trust was instituted.

PRESIDENT SCHURMAN: You have had the pleasure of listening to the present Governor of our State. When the University was opened in 1868, the State, owing to the inability of the Governor to be present, was represented by the Lieutenant-Governor. After the lapse of almost forty years that gentleman is with us to-day, having in the interval continuously served the University with great wisdom and ability and with unflagging hope and zeal as a member of the Board of Trustees. He is also the founder of our most coveted prize in the art of oratory, of which he is himself a distinguished exemplar. He is, however, not only an orator; he is a lawyer of high standing, a public-spirited citizen, and a diplomat who has represented our Republic in foreign courts. In spite of all his honors, however, we always think of him as the old-time, faithful friend of Cornell University. I do not introduce, I merely present our good friend, the Hon. Stewart L. Woodford.

ADDRESS OF GENERAL STEWART L. WOODFORD

It is a long look backward to that October day, in 1868, when Cornell University was first opened for the reception of students, and began its work among the great schools of the country. We were gathered in the audience room of the old Cornell Library, with which you are all familiar. Our entering senior class numbered eight. My old Yale College mate, Dr. White, was our President, and it fell to my lot that day, as Lieutenant-Governor of New York, in the absence of Governor Fenton, to represent the State, and deliver to Dr. White the charter and keys of our University. (Turning to Governor Hughes, General Woodford continued.) Your Excellency, I was once myself a candidate at the polls for the great office you not only hold but fill. The people did not have the same kindly appreciation of me as they had of you last autumn. You ob-

tained your certificate of election. Through the kindly intervention of Senator Tweed and his confreres I failed in getting mine. I heartily congratulate our people and our State that you succeeded where I failed. (Turning again to the audience, General Woodford continued.) Ladies and gentlemen, I have had much satisfaction in my administration of our State affairs. An old maxim of the civil law declares that what one does by another he does by himself. I once had Governor Hughes as a law student in my office, and from what he has done at Albany you can see how well I trained him. I did not quote this maxim of the civil law in its original Latin, for I have not President Schurman's rare gift of translation into verse. But if what one does by another he does by himself, may not the defeated candidate for the Governorship of thirty years ago modestly claim some credit for this most successful administration?

We had a great University from the start. It was once said by a student of Williams that, given a hay rick, Mark Hopkins and one student, there was a University. We had Ezra Cornell for our Founder, Andrew Dickson White for our first President, Professor Agassiz, Russell Lowell, George William Curtis, Bayard Taylor and Goldwin Smith in our first Faculty. We were indeed a great University from the beginning.

My few remarks must of necessity be reminiscent.

As I recall that day when we opened our doors memory goes back to the time when I first saw Andrew D. White. It was in 1852 on the campus of Yale College. Yale had not then grown to the dignity of being a University. We were simply Yale College, and Harvard was only Harvard College, and Princeton was only Princeton College. I remember well the thoughtful, earnest, serious, but always courteous and always kindly young man. I did not grow to know him well in our college days, because class distinction was then very literal and very effective in college life. He was a junior. I was only a sophomore, and when I

raised my hat to him as we passed, and he recognized my salute with courteous and graceful bow, I imagined that I knew him as well then as I should now, were we brothers in a college fraternity.

I first saw and met our great Founder when I took my seat as Lieutenant-Governor at Albany. Ezra Cornell and Andrew D. White were then Senators in the small circle of the Senate Chamber. I well recall Mr. Cornell, serious, kindly, earnest, taciturn. It became my good fortune afterwards to know him well, and a truer, more generous, more unselfish and more far-sighted man than Ezra Cornell I have never known. He was so modest that when he had determined to create this University he wished to name it in some such fashion as this, either the New York State University or the New York State Technical College, but never dreamed of allying his own name to the foundation. He only yielded and consented to our becoming Cornell University after Senator White had long reasoned with him—had told him that Harvard had taken the name of its founder; that Yale had taken the name of the clergyman who induced his confreres to give their few books that there might be a beginning of the college; that Brown had taken the name of its founder, and that it was due alike to the family and the home of Ezra Cornell that the University which he founded should be forever Cornell University. And so, ladies and gentlemen (turning to Dr. White), permit me to present to you the sponsor who stood godfather to the child.

We have our college colors, the red and white. Night before last I sat beside a fair and cultured woman of Ithaca, and during our conversation accidentally asked her if she knew how Cornell obtained its colors. She answered "no." I asked another at luncheon yesterday, and she said "no." Then I asked a member of our Board of Trustees, and he said "no." Then I asked two leading members of our faculty, and each said "no." Let me ask you of this great audience. Your silence indicates pos-

sible ignorance even on your part. When we chose the red and white we took the carnelian red in thought of our Founder, Ezra Cornell, and we took white for our first President, Andrew Dickson White. If any of you shall be asked thirty years from now how we got our colors, don't let our lady graduates reply that the red and white signifies a fair female complexion; don't let our men reply that with a little indigo added they would be the patriotic colors of the nation. But remember always that the carnelian red and the pure white were the birthright of the University, and stand for our Founder and first President.

The Morrill bill, passed in 1862, gave large grants to all of the States for the founding and maintenance of colleges where should be taught especially agriculture, the mechanic arts and military science. The struggle of the civil war was then upon us. Poets may then have dreamed of peace congresses, but the men of that day knew that bayonets must preserve the life of the nation. And so instruction in military science was made an integral part of the foundation of every school organized or aided under the Morrill bill.

We have kept the faith pledged in our acceptance of the benefits of that bill.

This great gift of the State, this building you dedicate to-day, is for agriculture. Sibley College and all our great plant for instruction in the mechanic arts tell what we have done for the highest education of labor. This armory with its peaceful stacks of silent muskets, the inspiration of '76, the memories of 1862, teach us forever that the armed force of the nation is necessary to maintain the life of the nation; that when treason strikes there must be an intelligent and patriotic military force to direct and energize the loyalty and effort of the nation. To-day, as forever in the past, the strong right arm of the soldier must save the flag in time of peril. I pray that peace may smile forever on this republic. I pray that order and obedience to law may be and abide in the home, in the

city, in the state, and in the nation. I pray that the time may come when the nations shall gather "in the parliament of man, in the federation of the world", and when peace shall reign the wide world over. But until that millennium shall dawn I bid you remember that right must be strong enough to beat down wrong. The wolves never care how many sheep there be. To protect the sheep there must be force sufficient to beat back the wolves.

If we would keep agriculture at the forefront we must give to the farmer the best chance for broad, scientific and efficient agricultural education. This problem has been with us since the founding of that first agricultural college where Professor Adam taught in Eden. I congratulate you on what Cornell is doing and has the chance to do to-day.

If we would keep labor and industry intelligent and far-sighted we must see that they form a part of the opportunity for the highest education. Such schools as Sibley give this opportunity to-day.

If we would preserve our Republic safe from the danger of the plutocracy on the one hand and the mob upon the other, we must see that our educated men and the great body of the plain people have full opportunity to master the rudiments of military science without the necessity of a great standing army.

My young friends of Cornell, never forget the responsibility that goes with intelligence and strength. Let us so labor on that the Cornell of a century, grown and developed with the increase of a century, shall stand for the same principles and things that Cornell stands for to-day, for culture, for agriculture, for the mechanic arts and for military science. Then shall our children's children feel for us the same gratitude we have to-day for Ezra Cornell, who gave, and for Andrew D. White, who helped him build.

PRESIDENT SCHURMAN : We have been favored to-day by the presence of the Governor of the State of New York and of a gentleman who ought to have been Governor of the State of New York. Our gubernatorial resources are not yet exhausted. We have still to present to you a recent Governor of the State of New Hampshire. This gentleman comes to us not only as the former chief executive of a sister state, but as the Master of the National Grange, the leading exponent of the great agricultural interests for whose benefit we dedicate these buildings to-day. I have the honor to introduce to you the Hon. Nahum Josiah Bachelder, our co-worker in the field of agricultural education.

ADDRESS OF EX-GOVERNOR BACHELDER

I appreciate the honor in being permitted to speak for agriculture at this notable gathering. I might speak as a practical farmer, as a trustee of the agricultural college of my state, as the executive officer of the state department of agriculture of New Hampshire, but I understand I am invited here to speak for the farmers of the country through their great national organization. I appreciate the honor of speaking for it and for them upon this occasion.

The leadership of the State of New York among the states of the Union in all that pertains to the welfare of the people of the country is generally recognized, and the erection of this magnificent building, dedicated to the interests of agriculture, is evidence of the appreciation of its citizens of the importance of this great basic industry. The leadership of the State of New York in agricultural matters finds expression in its splendid grange organization of larger membership and therefore greater influence than is found in any state, in the comprehensive scope of the work of its department of agriculture, in the efficiency of its far-

mers' institute system, and in its great State College of Agriculture. The citizens of the State of New York have most appropriately recognized agriculture and the departments and organization promoting it in providing these buildings around which will center their agricultural interests, and in which will be prosecuted the work of this great College in the upbuilding of agriculture, and towards which the eyes of the farmers of the nation will be turned for years to come. I congratulate the farmers of New York upon an achievement that promises so much for them and the people of the nation who will share in the benefits conferred by it.

It would be a matter of much interest to trace the development of agriculture in the country, from the crude methods of the red man in the production of a few stalks of corn with a clam shell for an implement and a hollowed stone for grinding the grain, to the perfected farm machinery and the great flour mills of to-day. Equal interest would also be found in following the improvement of farm stock, from animals which served in the dual capacity as milk producers and beasts of burden to the registered performers in great dairy contests. The progress made in these matters would reflect in a remarkably clear manner the progress made in agriculture as a whole. The pioneers who settled upon the farms in New England, New York and in the great West were a sturdy race of people. They were imbued with a resolute spirit and were stimulated by the one desire to dig from the soil an honest livelihood for themselves and their families. All else was subordinate to this, and they entered upon the task with remarkable fortitude and courage. The journey to the place selected for the rough cabin home was frequently made over the trail, marked only by spotted trees, with the family and household goods carried upon horseback. The young wife cooked the meals, reared a family of children, kept the cabin in order and the wild animals away, while the husband was vigorously preparing the land for the production

of crops. In the course of time the cabins gave way to frame buildings, barns were erected, and, as the farm products became more than sufficient for family use, a portion was sent to market. As the farms were developed, roads were constructed, school houses and churches built, and government, both local and state, established. The pioneers in every section of the country have been tillers of the soil, and the government established and the laws enacted were by them and for their industry.

Wonderful strides have been made since then in matters of communication and transportation in rural districts. Rural mail delivery and the rural telephone have placed the farmer in direct communication with the world, and the vast net-work of trolley lines enables him to reach town or city with great convenience and at little expense. The parcels post, when established, will prove a greater boon to farmers than to any other class of people.

The farmers of to-day are not called upon to endure the hardships of the early settlers, and their occupation has changed from one of toil and drudgery, requiring great physical endurance, to one of refinement, requiring great mental effort. The man with the clam shell as a farm implement has been superseded by the man with the hoe, and the man with the hoe has been superseded by the man with the riding cultivator. The old-time sickle has given way to the cradle, and the cradle has given way to the reaper and self-binder. The danger from the red man and the wild animals has been superseded by danger from the bond seller and the automobile. The spotted trail has given way to magnificent stone roads, and in many instances, I regret to say, the stalwart representative of the farmers in public affairs has given way to the professional politician.

Remarkable progress has been made in industrial development in recent years, in which agriculture, as we have indicated, has had a proportionate part. I might quote statistics showing the magnitude of this industry, the

yearly value of farm productions, including live stock, fruit and dairy products, and the great volume of agricultural exports which have made our country a selling, instead of a buying, nation, but these would be meaningless without corresponding figures in regard to other industries, and this is not the time or place for a recital of these figures. Suffice it to say that there are more people engaged in agriculture and more money invested in it than in any other single industry, which fact alone would entitle it to prominence among the industries of the nation. This, however, does not constitute its greatest claim to recognition, but the fact that it is a productive industry.

Manufacturing gives employment to a vast army of laborers and to a great amount of capital, builds up thrifty cities and villages, but manufacturing produces nothing. It takes the raw material that had its origin in the soil and transforms it into the finished product, but nothing has been added to it. Manufacturing simply changes the form of things. Transportation, which is an important factor in industrial affairs and causes the existence of great commercial centers of wealth and population, transports products from one locality to another, where they are in greater demand and command a greater price, but nothing has been added to them. Transportation simply changes the location of things. Around manufacturing and commercial centers great mercantile interests have developed but these represent simply the interchange of commodities. Trade simply changes the ownership of things. The professions in great variety, both honorable and necessary, find employment among the people engaged in the industries and pursuits, but none of these produce anything.

Agriculture produces things. The intelligent efforts of the husbandman combine the elements of the atmosphere and the elements of the soil, neither of which have a marketable value in their original form, bring crops into existence, and add to the real property of the world. The elements of the soil were as abundant, and the climatic con-

ditions as favorable, when this country was inhabited by savages and the bison roamed over the fields at will, as they are at the present time. The growth of great cities has followed, rather than preceded, the development of agriculture. When the products of the farm are reduced the fires in our great forges burn lower, the spindles in our great factories turn with less rapidity, the trains upon our railroads run with less frequency, and the goods upon the shelves of our great mercantile houses begin to gather dust. When the farms of the country yield abundant crops, as they have in recent years, abandoned forges are kindled anew, manufacturers are unable to fill orders, and transportation facilities, extensive as they are, become clogged. Agriculture furnishes the mainspring of industrial activity.

The agricultural resources of the country are of great magnitude, and the soil and climate are adapted to the production of a great variety of crops. The cotton fields of the South, the grain fields of the central West, the grazing of the mountain states, the fruit orchards of the Pacific coast, and the greenhouses of New England are among the most extensive and the most productive in the world. Figures representing the volume and selling value of the products of these are so great as to convey no adequate information, and yet the limit of production has not even been approached. With the development of irrigation, and the adoption of extensive agriculture, the farms of the United States can furnish the food products for the people of the entire world. The possibilities of agriculture are almost unlimited, and are quite beyond power of comprehension.

Those who represent you at Albany and those who represent us all at Washington, should understand that in the degree in which agriculture is fostered general prosperity will be promoted, and neglect of agriculture will be surely followed by degeneracy and decay in the nation. Agriculture is the basis, and not a by-product, of American industries.

If we study the history of the nations of the world aright we will learn that as agriculture has been fostered prosperity has prevailed. Japan, France and Germany are striking examples of this principle and mention might be made of those in the other class. If our own country reaches and maintains a leading position among the nations of the world, it will be through fostering care of its agricultural industry, rather than in the expenditure of extravagant sums of money upon military equipment. The real strength of a nation consists not in great standing armies and magnificent battleships, but in the prosperity of its agriculture.

Speaking broadly, I will say that our government has exercised great liberality towards the agricultural industry. It supports a department of agriculture of a comprehensive nature unexcelled among the nations of the world. Its agents reach the uttermost corners of the earth for seeds and plants that will increase the productiveness of our farms and secure parasites that will feed upon and destroy injurious insects. The increase in the appropriation for experiment stations, and the more recent increase in the appropriation for agricultural colleges aggregating nearly two million dollars annually, is evidence of its appreciation of the importance of developing agriculture. The appropriations made by states for making these funds available amount to several million dollars annually, while the educational and executive work supported by states in the interest of agriculture represents the expenditure of vast sums of money. The members of the great national farmers' organization, the grange, which has within its jurisdiction greater possibilities for the welfare of the farmers and the development of rural affairs than any voluntary organization in the history of the world, are contributing more than a million dollars annually for carrying on its grand work, which is securing marvelous results.

The great problem before us is how to induce farmers to make these great facilities available. Richly endowed col-

leges of agriculture are of little benefit unless farmers will send their sons to be educated. Millions of experiment station bulletins amount to but little unless farmers will read and profit by them. The best organized farmers' institute system in the world will avail nothing unless farmers will attend and put the instruction given in practice upon their farms. The largest grange can accomplish but little for its members unless they make an effort to attend its meetings. No college, or station, or institute, or grange can do for the farmers that which they must do for themselves, although these may help them do it. One of the most encouraging signs of the times is the general interest among the people in all these agencies, for the buildings devoted to their purposes are scarcely large enough to accommodate those who desire admission. There is a tremendous awakening among the agricultural people of the country that means much for the future development of agriculture and of the nation.

It is unnecessary, and even presuming, to speak of the importance of energetic and intelligent effort for success in agriculture in this great agricultural state. Success in any occupation or profession does not depend so much upon conditions and environment as upon an indomitable effort to succeed. Contingencies will arise in agriculture that cannot be accurately forecasted, for climatic conditions may upset the best laid plans, but those are less numerous than supposed. The shiftless farmer attributes failure to unfavorable weather, while the energetic, intelligent farmer attributes failure, if it comes, to lack of proper safe-guards against it. The systematic rotation of crops, the proper manipulation of the soil and the intelligent feeding and breeding of farm animals will go a long way in preventing failures that might otherwise be ascribed to the forces of nature, or the effect of unwise and burdensome laws. It is not right to charge the Creator with things for which we alone are responsible, or the legislature with acts for which it is not guilty.

The farmers of the country, in addition to thorough preparation for agricultural pursuits by means of the various agencies provided, need to exert a greater influence in public affairs than they have in the past, for, as the great producing class, they bear the burden of unjust legislation and extravagant appropriation more than other people. The more abundant the crops and the greater their apparent prosperity, the less they appreciate this fact. We have no specific recommendations to make in regard to any legislative matter, either state or national, but refer to the general application of this principle. When people have exercised the right of suffrage at the polls and a member of some political party has been chosen to office, they still have a duty to perform in upholding that official in his defense of the right and in struggle with wrong. It is in this way only that the farmer can exert that influence in public affairs to which he is entitled by the great importance of agriculture as the basic industry of the nation. It is his duty to see that only competent, faithful and honest men who will recognize the great importance of agriculture and unflinchingly stand by its interests are nominated for positions of trust and when they have manifested their loyalty to the people, as the great governor of your great state has done, uphold his hands and sustain him while he occupies the position.

Every effort that renders farming more profitable and farm life more attractive is a patriotic effort, and that agricultural college that is not stimulating in the mind and heart of students a love for agriculture and for farm life is not fulfilling its mission, however large its number of students, or however able the members of its faculty. A prime object in the establishment of agricultural colleges was raising the standard of this great industry through the mental development of those engaged in it. The men trained in this great college and located upon farms in all sections of this great state have been beacon lights for those in the vicinity who were unable to receive its training.

This is not only a benefit to agriculture and the State, but it is also a benefit to the men educated, for when a person is induced to engage in farming in an intelligent and scientific manner he has entered upon the most comfortable and independent life open to him in any of the industrial pursuits. If his opportunity for making money is not so great as in a metropolis, his chances of becoming an honorable and useful citizen are greater and the dangers of moral degeneracy are far less.

The most valuable asset of farming is the privilege of enjoying country life. The improvement in the means of transportation and communication between city and country and a better appreciation of the health-giving qualities of out-door life have caused the development of great public sentiment in favor of rural life. Sympathy is no longer expressed for the person who is obliged to live in the country, but for the person who is obliged to live in the city. Life in the country is natural, while life in the city is artificial. Contact with nature in the pure moral atmosphere of rural life contributes to the physical, mental and moral development of the boys and girls, thereby forming character that will later result in occupying positions of great responsibility in the state and nation. Without recourse to fresh blood from the country our cities would decline and our great industrial and commercial enterprises would fail for lack of leadership.

To live in the country and enjoy all its pleasures we should love rural life. To love the country is to take an interest in all that belongs to it—its occupations, its sports, its culture and its improvement—to gather the flocks around us and feed them from our own hands—to make the birds our friends and call them all by their names—to rove over the verdant fields with a higher pleasure than we would find in the carpeted halls of regal courts. This is to love the country and to make it not the home of the body only but of the soul.

The building dedicated to-day to the cause of agriculture will continue for all time a permanent factor in stimulating more intelligent husbandry, a better and higher standard of manhood and womanhood among the rural classes, enabling them to exert in a greater degree the influence intended by the Creator, restoring the tillers of the soil to their rightful position as the true nobility of the land.

PRESIDENT SCHURMAN: Governor Hughes has, in his speech, done me the honor of referring to the day, fifteen years ago, when he as a professor of law in this University sat in this building and listened to my inaugural address as President. At that time, you will recall, Cornell University did not receive from the treasury of the State of New York a cent for any purpose whatever. In that address, as Governor Hughes has described to you, I outlined the policy of State aid to Cornell University, especially for the maintenance and large development of our work in agriculture and veterinary medicine. Governor Hughes has referred to the surprise and concern of the audience at the announcement of this new program. One of my wisest and best friends on the Board of Trustees afterwards told me there was not a person in the room who had any faith in the scheme. To-day, however, we have two colleges splendidly housed at the expense of the State, and the State generously appropriates for their support nearly \$200,000 a year.

Governor Hughes, in kind and complimentary terms, said that "rarely has there been vouchsafed to any prophet a clearer vision or a more complete fulfillment of his prophecy." If you will not think me immodest, I desire to inquire whether another prophecy of mine has not been fulfilled. In 1903 Professor Isaac P. Roberts retired from the Directorship of the College of Agriculture after a term of faithful and highly efficient service extending over a generation. I then nominated to the Board of Trustees as a successor to Professor Roberts a man who I told them would, in my opinion, quickly prove himself to be the best agricultural college director in the United States. I ask to-day whether this prediction has not also been fulfilled, and I now present to you the distinguished Director himself, Professor Liberty Hyde Bailey.

THE OUTLOOK FOR THE COLLEGE OF AGRICULTURE

L. H. BAILEY

The dedication of these great buildings raises two questions—the question of their purpose and the question of their significance. In discussing these questions, it is likely that we shall review a type of problems that is somewhat unusual to university gatherings, and we may arrive at a new outlook.

It is first necessary to state a point of view. This College of Agriculture is not established to serve or to magnify Cornell University. It belongs to the people of the State. It will justify its existence only as it serves the people of the State. The farmers of the State have secured it ; no amount of academic sentiment would have secured it. Their influence has placed it here. They will keep it close to the ground.

The final establishing of this college, after many years of experiment and of waiting, is another epoch in the fulfillment of the dream of our great Founder. His outlook was one of service, and he would serve by founding an institution in which any person may find instruction in any study.

We should never forget at such a time as this to value the services of our former director, whose long, patient and tenacious work has made this day possible. To more than one of us, Professor Roberts has been guide, philosopher and friend.

I. THE PURPOSE OF THE COLLEGE

The purpose of this College of Agriculture is fully expressed in the act of administration :

“ The object of said college of agriculture shall be to improve the agricultural methods of the State ; to develop the agricultural resources of the State in the production of

crops of all kinds, in the rearing and breeding of live-stock, in the manufacture of dairy and other products, in determining better methods of handling and marketing such products, and in other ways ; and to increase intelligence and elevate the standards of living in the rural districts. For the attainment of these objects the college is authorized to give instruction in the sciences, arts and practices relating thereto, in such courses and in such manner as shall best serve the interests of the State ; to conduct extension work in disseminating agricultural knowledge throughout the state by means of experiments and demonstrations on farms and gardens, investigations of the economic and social status of agriculture, lectures, publication of bulletins and reports, and in such other ways as may be deemed advisable in the furtherance of the aforesaid objects ; to make researches in the physical, chemical, biological and other problems of agriculture, the application of such investigations to the agriculture of New York, and the publication of the results thereof."

II. THE SIGNIFICANCE OF THE COLLEGE

The significance of this new State institution is determined by the public need of it, and by the promise it makes of meeting these needs.

The need of an institution that stands primarily and directly for the people who live on the land is apparent when we consider that one-third of the persons in the Union are farmers, and that even in New York State, dominated as it is by great cities and by corporate interests, there are apparently more farmers than in any other state in the Union, outside the slave states, excepting only Illinois and Ohio, and when we further consider that all other special educational institutions of whatever kind or name, are organized and maintained in the interest of professions or affairs that center in towns and cities. Not only do one-third of our people till the land for a living, but the prosperity of the other two-thirds is directly or indirectly conditioned on the products that this one-third raises out of the soil. The weal and welfare of these persons who live under the open sky determine, therefore, to a great extent the

welfare of the general public; and, equally, the point of view and the attitude of these numberless people are reflected in every national question.

In the United States there are 5,739,657 farms carrying about 25 million farmers. There are five million farm homes,—not persons living in rented houses, or boarding in strangers' families, or living in flats and milking a tin cow; but persons living in homes that they own or mean to own, going about their business in their own way, earning their living,—not receiving it or getting it, but earning it—self-respecting, staunch, of good original fiber, asking favors of no man, but wanting opportunity and waiting for it.

As they are near the objects with which they live, so do their mental processes run directly from fact to conclusion with little regard for proper forms of logic. So also are they likely to measure men and affairs by real standards. The city man is removed from first-hand contact with sources of supply. His supplies come in packages, with labels and coloring matter, and he is not content unless they are sophisticated or fixed up. He not only drinks water from bottles, but adulterates it with carbonic acid gas. The farmer drinks uninflated water.

The position of agriculture in the affairs of the nation is further evidenced by the fact that 35.7 per cent of all persons over ten years of age engaged in gainful occupations are in agricultural pursuits as against 24.3 per cent in manufacturing and mechanical pursuits, 16.3 per cent in trade and transportation, and 23.7 per cent in professional, domestic and personal service.

The value of all farm property in the last census year was \$20,514,001,838, while the entire capital in all forms of manufacture for the same year was less than half this amount, or \$9,874,664,087. The total horse-power employed in all factories was 11,300,081, whereas the total number of horses and mules on farms in the United States was 18,276,551. Aside from this, very many farmers are

using other power than horses and mules and most of them use machines that multiply the power of horses and mules.

AGRICULTURAL POSITION OF NEW YORK STATE

Coming now to the State of New York, we find that there are nearly 227,000 farms. The number of farms with buildings is 223,836. If we assume that each of these farms with buildings has a family of the average size of families in the census year (4.7 persons), we find that there are more than one million persons living directly on the land in New York State.

There are six states in the Union that have a valuation of farm property exceeding one billion dollars, and in this list New York State stands fourth, being exceeded by Illinois, Iowa and Ohio. In the total value of farm products New York has the same rank, being exceeded by Iowa, Illinois and Ohio. In the value of farm crops in 1899 it* held fifth place, being exceeded by Illinois, Iowa, Texas and Ohio. Considered with reference to the value of farm products per acre it heads the states in this list, the figures being, New York \$15.73 per acre; Ohio, \$13.36; Illinois, \$12.48; Texas, \$12.25; Iowa, \$12.12.

New York State has about sixty-seven and one-half thousand dairy farms, or one-sixth of all those in the entire Union. This is more than twice those in Pennsylvania, and nearly twice as many as in Illinois, Iowa and Ohio combined. The milk produced in New York in the year 1889 was 77,799,352 gallons. New York State ranks first in the Union in the production of hay and forage, in this commodity producing about one-ninth of the product of the United States; in milk, butter and cheese, exceeding by about twenty millions of dollars its nearest competitor; in the number of dairy cows, exceeding one and one-half millions (the only county in the Union having more than three millions of dollars worth of dairy products is St. Lawrence county, N. Y.); also in potatoes, vegetables, farm forest

products, apples, hops, flowers and plants, small fruits, and nursery products.

These great figures of the agricultural effectiveness of New York State are often lost sight of in the preponderating influence of our many cities. Eighty-five per cent of the taxes of New York State, for example, are paid by Greater New York and Erie County. We must bear in mind, however, that this wealth did not originate in these cities. The raw material comes somewhere from mother earth, and a good part of it comes from farms in New York State or elsewhere. There are only three sources of raw materials—the soil, the mines, and the sea. If one were to judge by the temper of recent events, he might think that some of the raw material in cities is derived from the wind.

It is a wrong philosophy that would apply the proceeds of taxation only to the localities in which they originate. The state is an organism, and cities, like the country, are only parts thereof. Whatever may be said for or against strong centralization of government, it has the tremendous advantage of being able to expend the revenues collected of all the people in the interests of all the people. All along the cities seem to have carried the idea that the country is responsible chiefly to them ; the city also is equally obligated to aid its contributory country—to do its share in the contributing of public revenues to build country highways, country churches, country schools, and other rural institutions, for it is from the country that the city derives its raw materials which it works over into immediate wealth. The city has a distinct obligation to the country. Without the country there would be no city ; without the city there would still be land. Great as the cities are and much as they mean to our modern civilization, the city cannot live to itself alone.

THE AGRICULTURAL DECLINE IN NEW YORK

Great and commanding as are all these figures of agricultural wealth, there is nevertheless another side to the

picture. So far as statistics exhibit the facts, there is in many ways a marked decline in the agriculture of New York State. In 1850, 1860 and 1870 New York held first place in the value of farm property. In 1880 it lost first place to Ohio ; in 1890 it took third place, being exceeded by Illinois and Ohio ; in 1900 (as already stated) it took fourth place, being exceeded by Illinois, Iowa and Ohio. In population there has been a marked decline in rural communities. According to the figures of Rossiter, in 1850 five rural counties showed a decrease in population ; in 1860 nine ; in 1870 nineteen ; in 1880 eight ; in 1890 twenty-three ; in 1900 twenty-two ; in 1905 (State census) twenty-one. It appears that 43 counties have shown a decrease in population at some period in the past century. Twenty-eight counties, or one half those outside the metropolitan districts, have a smaller population to-day than they have had at some previous time, and these counties represent nearly one half the entire area of the state. There has been a decline under the maximum of more than 80 thousand persons in the rural counties of the state. This decline seems to be expressed (1) in migration of population to cities and to other regions ; (2) in lower birth rate.

In the occupancy of farms there has also been considerable change. While there were nearly 1,200 more farm families in the state in 1900 than in 1890, there were 3,479 less families owning farms and 3,238 more families hiring farms. The percentage of farms operated by owners had decreased in the ten years from 79.8 to 74.4 ; the percentage operated by tenants had increased from 20.2 to 23.9. Of the nearly 227,000 farms in the state in 1900, 34 per cent are reported as encumbered. Moreover, between the years 1880 and 1900 there was an annual decrease in value of farm property of seven and one-third millions of dollars. For the same period there was an annual decrease in the value of land and improvements of nearly eight and one-half millions of dollars.

It is worth while to recall that the density of population

in New York State in 1905, according to Rossiter's figures, is only 169.4 persons to the square mile, notwithstanding the fact that in New York City it is 12,000 to the square mile. In the remainder of the state (outside New York City) it is 86, or one person to each 7.4 acres; yet we have been reading for many years of "Ten Acres Enough" and the latest contribution to this literature is called "Three Acres and Liberty."

THE REAL SIGNIFICANCE OF THESE FIGURES

Startling as these figures seem to be, they really are not cause for great alarm. They are measures of a condition; and this condition must be understood and fairly met. This condition represents the greatest internal economic problem in New York State to-day.

In the face of all this statistical decline three facts stand out prominently: (1) markets are as good as ever, for there is no decline in the purchasing power of the people (rather there is a reverse tendency); (2) the land is still productive, notwithstanding a popular impression to the contrary; (3) good farmers are better off to-day than they ever were before.

We have heard much about the abandonment of farms and we are likely to think that it measures a lessening efficiency of agriculture. We must not be misled, however, by surface indications. We must distinguish sharply between abandoned farms and abandoned lands. We are now in the era of a process of the survival of the fit. Two opposite movements are very apparent in the agriculture of the time: certain farmers are increasing in prosperity, and certain other farmers are decreasing in prosperity. The former class is gradually occupying the land and extending its power and influence. The other is leaving the land. Abandoned farms are not necessarily to be deplored; rather they are to be looked on as an expression of a social and economic condition. The older farming was practically a self-regulating business, comprising not only the raising of

food and of material for clothing, but also the preparation and manufacture of these products. The farmer depended on himself, having little necessity for neighbors or for association with other crafts. In the breaking up of the old stratification under the development of manufacture and transportation and the consequent recrystallizing of society the old line-fence still remained ; persons clung to the farm as if it were a divinely ordained and indivisible unit. This atomic conception of the farm settled the business into rigidity. The abandoned farms are forsaken atoms ; and there are many other atoms, large and small, to which the owner still clings with a forlorn hope. In most cases, the rehabilitation of these farms must be molecular. The traditional boundaries must often be disregarded. Old farms are largely social rather than economic units. Because a certain eighty acres is enclosed with one kind of fence and assessed to one man does not signify that it has the proper combination of conditions to make a good farm. We regret, often without reason, when a family gives up the farm for the town ; we drop a tear for the abandoned hearthstones. But in the end, sentiments are personal. New farms will be made out of the old. Rome is built on the ruins of Rome.

We must consider that the agriculture of the eastern states is changing rapidly. It has passed through several epochs. Farming has been a very easy business, as measured by the old ideals and standards. With the increasing demands and competitions of civilization, however, it is coming to be much more complex and is demanding a much higher grade of intelligence and greater business ability. The farm of the future must be very much better equipped than the farm of the past has been.

The future of agriculture in New York State lies largely in its diversification. This diversification is already a feature of the State. It is significant that while New York ranks fourth in value of farm property, it ranks as low as seventeenth in farm acreage, showing that the yield per

acre is far greater than in many of the competing states. Considering the fact that New York State is one of the largest states east of the Mississippi, this condition also indicates that New York is internally less developed than some of its competing states. Illinois ranks first in value of farm property and first in available farm acreage ; Iowa ranks second in value of farm property and second in available acreage ; Ohio ranks third in value of farm property and third in available acreage ; New York ranks fourth in value of farm property and seventeenth in available acreage. Moreover, only 69 per cent of the total acreage of New York State is improved land. We have already seen that the value of products per acre in New York State is greater than in the competing states that we have considered.

A further evidence of the great diversification of agricultural enterprises in New York State is shown in the fact that in twenty-two of the leading products of this latitude New York State stands first in the production of eleven of them, whereas no other state ranks first in more than two or three.

Fifty years ago, fifty millions of pounds of cheese were made on farms in New York State, whereas only two and one-half million pounds are now manufactured in that way ; but more than 127 million pounds are made in factories, indicating a very great change in conditions of manufacture as well as showing the increase in the total product.

It does not need figures to convince any person who has traveled in New York State that the agricultural resources of the commonwealth are undeveloped. Agriculturally, New York is a new state. One-third of it is in woodland. A good part of the state to-day is a howling wilderness. Farmers in certain parts of the state are now petitioning the Legislature to protect them from bears.

EDUCATION IS THE SOLUTION

The problem, therefore, is one of readjustment to new conditions, and this readjustment can occur only through

the diffusion of greater intelligence. Knowledge and education lie at the very foundation of the welfare of the open country of the Empire State. Information and knowledge, however, and even education, do not of themselves constitute reform or progress. We need legislation and broad redirection of social and economic forces ; but education lies behind and at the bottom of all these movements and without it no lasting progress is possible.

There are many reasons why New York State should be first in agricultural activity : (1) it has already held the leadership and it should be a matter of state pride to regain that position ; (2) because of its geographical position and its great markets ; (3) because of its large area ; (4) because of the diversity of its soils and its products ; (5) because of the steady and forceful character of its rural population. But first place in agriculture also means first place in the intelligence and enterprise of its farmers. Some of the states to the west of us have taken great pains to develop their agricultural conditions. Their conditions, however, are often easy and simple as compared with ours. Highly diversified agriculture demands the highest degree of special and technical skill, as it also develops a wide diversity of affairs and a high type of citizenship. American agriculture is yet raw and undeveloped. I look for its first real evolution in the old east rather than in the west. In the west they are still in the epoch of self-congratulation, and a man who criticizes or who gives some other state the credit of more tons of produce is in danger of being much criticized. We in the east have reached the point where we are willing to look the facts squarely in the face.

If knowledge and education supply the basis of all progress, it next concerns us to inquire what manner of education the farming people need. It would seem to require no argument to convince any one that education in agriculture should be expressed in terms of the daily life. Our education has not been so expressed. We have been pass-

ing through a long epoch of experimenting in methods of teaching agriculture. Leaders have been produced, literature has been written, and a broad basis of scientific fact has been developed. We are now able to put agricultural questions and affairs into pedagogic form so that agriculture is made a means of education. There is no reason why country-life subjects should not be made to be as effective in training men as those associated with mechanics or engineering or history or medicine or law. Because this has not been accomplished in the past is no reason why it may not be accomplished in the future. We shall probably see as much progress in the next ten years in these regards as we have witnessed in the past fifty years. These purposes are well expressed in the Land Grant Act of 1862, which is the magna charta of education, probably being the most important enactment ever drawn in the interests of educational policy. All funds accruing from the Land Grant Act are to be used, in the language of the act, "in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

THE NEW YORK STATE COLLEGE OF AGRICULTURE

Having discussed the need of an institution that shall be a normal and natural expression of agricultural affairs and that shall represent them in all their varied activities, we may now consider what promise this State College of Agriculture makes of meeting this great need.

(1) First of all, I call attention to the fact that this college contains men and women. Here are my colleagues, sitting with their fellows from the other faculties of this great University, well trained, high-purposed, standing equal with their associates in the esteem of their colleagues and of all the world. There are sixty-nine members in the staff, appointed by the Board of Trustees, and I am sure that I am safe in saying that no other equal body of men in the world excels them in their ability to study and to solve the questions to which they have devoted their lives.

And before me are the students, men and women—not a few ill-prepared men apologizing for the subjects they pursue, but hundreds of them, old and new, earnest, well-prepared, with a purpose in life, and industry and grit to carry it out, and every one of them as proud as he can be that he is a member of the College of Agriculture.

The number of students in this University pursuing agriculture alone during the present year is 542, of which 241 were winter-course students. Not counting the graduate students, which have increased very greatly, there has been an increase in attendance of students in agriculture in Cornell University in the last ten years of 390 per cent. These figures now place the New York State College of Agriculture amongst the first three or four in the Union ; and yet the college has only begun its work--this dedication begins a college, not completes it. There are 100,000 boys and girls back on those farms that should be receiving instruction in agriculture this very day, and when our work is in full swing next winter, yonder buildings, large as they seem with their nearly three acres of floor space, will not be able to accommodate the student body properly. This year Faculty and students in agriculture alone number 610 ; the main auditorium, which you are soon to inspect, seats 550 persons. Nearly 2,000 students have left us, far the larger part of them having gone directly to the farms and dairy establishments of New York State. In twenty-five years there should be at least 10,000 more. In that day they will be the leaders. They will dominate not only the agricultural practice, but the social and political ideals of the open country. It is possible that they may dictate the control of the balance of power in New York State.

(2) The second assurance of promise and success lies in the fact that the interest in education by means of agriculture is not local. It is now more in the public mind than any other phase of education. This statement is well illustrated in the attendance of students of agriculture in the Land Grant colleges of the country. In the year

1894-5 there were 2,712 such students in attendance in the United States. In 1905 the number exceeded 7,000, representing a gain in ten years of more than 350 per cent. The gain in the next ten years will undoubtedly be very much larger. The leadership in rural affairs is rapidly passing to the interests that associate themselves with the agricultural colleges and experiment stations. In twenty-five years there will be a new political and social philosophy of the open country born out of these institutions.

(3) The third note of promise is the fact that we have here the framework of a serviceable college of agriculture. Most of the main departments in a modern college that stands for education by means of agriculture are now represented in the faculty and the curriculum. This college now comprises such distinctly agricultural departments, already organized or in process of organization, as agronomy, horticulture, animal husbandry, dairy industry, farm mechanics and machinery, rural engineering, rural art (landscape gardening), rural architecture, rural economy, home economics, and the normal department; also the extension work and the experiment station. Aside from these departments, are the special applications of some of the biological and physical sciences, as chemistry and botany and zoology in their relations with agriculture. Two or three other great departments are needed to make this college fully representative of the activities and affairs of the open country; but the foundation is laid. These departments represent the framework of a modern college of agriculture. On this framework the completed structure is to be erected.

The mere enumeration of these departments indicates that, while the main or central business of a college of agriculture is to teach the science and the practice of farming, such an institution really stands for the whole open country beyond the bounds of cities, taking this field because it is indivisible and also because other institutions have passed it by. There are whole universities that have

a lesser scope than these leading colleges of agriculture. These institutions mean not one iota less than the re-directing of the practices and ideals of country life, and they are to-day making the greatest single contribution to constructive pedagogical politics, and for the very good reason that they deal with the commonplace and fundamental facts and necessities of life. There was a day when universities tolerated instruction in agriculture. The time will soon be, if it is not already here, when a university that is a university must include agriculture if it is to meet the problems of the people.

(4) We are now witnessing a radical change in methods of teaching. These agricultural colleges have slipped their academic bonds. They are getting hold of the real objects and the real affairs. Land and animals and orchards and machines and crops are no longer regarded as mere museums, but they are laboratories and laboratory materials to be used for the same purpose and in the same pedagogical spirit as the geologist uses rocks or the chemist uses chemicals and chemical problems. In yonder buildings which we now dedicate there is a classroom into which real live cattle and sheep and other animals may be taken for study. These animals will be laboratory material. If it is worth while to study live bacteria and live insects, it is equally worth while to study live cows.

In other words, the spirit of the modern agricultural college is to teach in the terms of the actual daily life, making nature and the farm a real part of one's living and the foundation of his philosophy of life. The lack of appreciation of this laboratory significance has prevented the proper growth of these agricultural institutions. Never have they had money enough or freedom enough to work out the problems fundamentally. Agricultural education is the most expensive to maintain of all education because its laboratories are so large, so various, and so expensive in their up-keep. Institutions centering about city ideas receive no end of money and study. The open country is

finally coming to its own. With money and men the rural problem can be solved, and the State is under the necessity to solve it for its own preservation.

THE RE-DIRECTING OF RURAL INSTITUTIONS

We are all aware of the present return of country-life sentiment. It is of two kinds: the desire of many persons to escape to the country, which is reasonable; the desire of certain other well meaning persons, mostly doctrinaires, to "uplift" the farmer, which is mostly misdirected and unnecessary, but usually harmless and it keeps them occupied. The farmer stands on his own feet, and he needs no apology. The help that he needs is the removal of conditions that disadvantage him, so that he can work out his own progress. Now, mostly through no fault of his own, the institutions which are nearest to him are in a state of arrested development or even of decadence. The greatest need at the present day, whether in state or national issues, is a fundamental redirecting of rural institutions. There must be a new crystallization of ideas, and perhaps to some extent a new political philosophy.

The main effort of the agricultural colleges thus far has been to establish themselves and to teach their students how to make the land more productive. While a study of the means of increasing the productivity of land must always be the central effort of these institutions, as I have said, they have now taken on a much larger scope and must deal also with the farm as a part of the community and consider farming interests with reference to the welfare and the weal of the commonwealth.

We have lived in an epoch of city-building. The avenues of trade and the movements of population have drained the country into the city. The next generation is going to see the rise of the small town. The agricultural colleges and experiment stations are an essential part of this new redirecting of effort and all the work of these institutions eventuates in social ends. Agricultural institutions are

not isolated agencies. They contribute to the public welfare in a very broad way, extending their influence far beyond the technique of agricultural trades. Out of all our facts and discoveries we must now begin to formulate a new social economy.

With the growth of urban sentiment, the nativeness of urban institutions has been allowed to die out. City institutions have taken their places. The attention of all the people has been directed cityward; even though they live in the country, they think of the town and city as the proper place in which to go to church, to school, to seek enlightenment and amusement. Socially, the country has been left sterilized. If we need a fundamental redirection of country institutions, I may be allowed to indicate a very few of those which seem to me most to need new and careful study.

1. *Organization*.—We need to organize the affairs of the agricultural country. There are many small organizations crystallizing about local questions. These questions are largely economic. They may be societies of corn growers, of creamery men, of evaporated fruit men, clubs organized temporarily to check tuberculosis, reading clubs, and the like. Some central agency should coördinate and integrate all these local and isolated organizations so that, while every one maintains its complete autonomy, altogether they may proceed toward definite ends. Most of the rural organizations are really conventions meeting once a year or possibly once a month. In the interim they have no effective and continuing interest; thereby they lose their efficiency. In contradistinction to all this is the Grange which conducts its business throughout the year, its offices always being open; and this is why the Grange, with its more than seventy thousand members in New York State, has such tremendous influence.

2. *Communication*.—The city has developed greatly because of the perfecting of means of communication. The country is now beginning to consider this question. Trol-

leys, rural free deliveries, and other agencies are now well established. We must take care that these means of communication do not result in draining the country into many small cities or towns, as the railroads and canals have heretofore drained it into metropolitan centers. Good roads are a means of doing business expeditiously and economically ; they are also a means of overcoming isolation and they will have a great influence in organizing social movements in the open country. All other avenues of commerce have been primarily city feeders. It is of the utmost importance, therefore, that country highways serve country necessities.

3. *Entertainment.*—The city has developed high effectiveness in entertainment and amusement. Country people are looking to the city for their entertainment. I am wondering whether the time will not come when we shall endeavor to reëstablish some of the good old country entertainments and games. I have already said to the students in this college that I would like them to have an athletic field of their own if, thereby, they could develop native games in which many persons could participate rather than those in which a few perform feats of skill and all the others look on. There is no essential or necessary reason why country people should look wholly to the town or city for amusement or entertainment.

4. *Schools.*—The rural school needs fundamental re-direction. While it is better now than it ever was before, it is nevertheless in a state of arrested development as compared with town schools and city schools. The small country school is a good school just because it is small and also because it is close to the actual problems of the people. In spite of this fact, however, the teaching in these schools is little related to its environment. Our good old Professor Roberts, whom we all delight to remember and to honor, used to say that he had graduated from all the country schools, and the only thing he ever learned that had relation to the farm was that cider is made from apples.

I suppose it is indisputable that all effective education should develop out of experience; and also that every school should be the natural expression of its community. If these statements are accepted, then it will be seen that the mere addition of a subject here and there to the school curriculum may not be sufficient to put the school into real relationship with its environment. I am thoroughly in sympathy with the establishment of secondary special schools for the teaching of agriculture whenever they can be well organized and the subjects thoroughly well taught. I am also much in sympathy with the introducing of agriculture as a special subject in rural schools, whenever it can be effectively handled. These two agencies ought to be effective in arousing and crystallizing public sentiment to the need of a new kind of education. However, these cannot solve the problem of rural education in terms of the daily life. The separate agricultural school may be thoroughly effective from the pedagogical point of view, but even one in every county cannot reach all the people. Suppose there were fifty-five agricultural high schools established in the rural counties in New York State, and that each should have a capacity of graduating fifty students per year who had received elementary agricultural instruction. In order that one boy from each farm in the state should have a chance in such a high school would require about eighty-one years. Moreover, there should be at least two persons from every farm educated in terms of farm life, and new generations are being born. The final ineffectiveness of merely adding agriculture in the rural schools lies in the fact that it does not constitute a fundamental re-direction of the whole point of view of the school itself, although it may be a most useful means of starting a revolution that will bring about that desirable end. I believe in the nativeness of the rural schools. I should like to see them numerous and relatively small. In certain cases consolidation of rural schools may be advantageous. It is advantageous only when they need to be consolidated

or centralized for pedagogical reasons. It is not wise to consolidate them merely to secure greater funds to maintain a combined school ; for it is the duty of the State to see that its people are educated, and if we expend millions of dollars for canals and for roads and for other objects, we can also afford to spend more millions of dollars for the education of our children. I should be sorry for the time when local taxation for the maintenance of schools would ever be eliminated or reduced, for we need the spur of taxation to interest the community in its own affairs ; but, on the other hand, I also look for the time when the State will coöperate even more fully than at present in making direct appropriations to the rural schools. The school should represent local interest. We have become so much in the habit of moving from place to place that we are likely to lose our attachment to particular pieces of land. I strongly sympathize with the feeling of farming communities that when a school is discontinued in a neighborhood a vital spark has gone out of the community.

It is not necessary to have an entirely new curriculum in order to redirect the rural school. If geography is taught, let it be taught in the terms of its environment. Geography is the surface of the earth. It may well concern itself with the school grounds, the highways, the fields and what grow in them, the forests, hills and streams, the hamlet, the people and their affairs. When I began to study geography it was a ballooning process. I began somewhere off in the universe and gradually dropped down through the solar system until I reached the earth. When I landed on the earth it was in South America and Asia. I learned about the anacondas and boa constrictors of South America and the lions and tigers of the old world jungles. I never learned anything about the pigs and chickens on our own farm. What I learned about these animals was of two categories : there are certain animals that deserve to be studied because they afford products useful to man ; there are certain other animals that need to be studied because they are terrible creatures that eat folks up.

All this, of course, is rapidly changing. We are now interesting the child in the earth on which he stands, and as his mind grows we take him out to the larger view. A good part of geography in a rural community should be agriculture, whether so-called or not. Geography can be so reorganized and so redirected as in ten years to revolutionize the agriculture of New York State.

I might make similar remarks about arithmetic. The principles of number are, I suppose, the same everywhere ; but there is no reason why the practice problems should not have local application. In my day at least, a good part of the practice problems were mere numerical puzzles. I fancy that even at the present day the old people are interested in the problems that the child takes home merely because the child is in a fix and his predicament appeals to their sympathies. When, however, the child takes home a problem that has application to the daily life, there is a different attitude on the part of the parents not only to the problem, but to the school which gave the problem. A good part of agricultural practice can be expressed in mathematical form. How to measure land, how to figure the cost of operation, how to compound a ration or a spray mixture, how much it costs to fight bugs in the potato field, the mathematics of rainfall and utilization of water by plants—these and a thousand other problems that are personal and vital could be made the means of so redirecting and reorganizing number work as to make it possible, by means of the schools, to revolutionize the agriculture of New York State.

My hearer can at once make applications of this line of thought to the reading, to the manual training, and to the other customary work of the school. I recall the case of a young teacher who was told when he went into a community that persons could not spell as they did in the old days. He saw his opportunity. He discarded the spelling books and made up a list of two hundred words that were in common use in the community. He taught the people

to spell and, at the same time, he interested them in a new way in their own affairs. Starting from this beginning he has come to be a man of much more than state reputation.

You have only to consider the school houses to see that the rural school is in a state of arrested development. Go with me from Maine to Minnesota and back again and you will see in the open country practically the same kind of schoolhouse all the way, and this is the kind in which our fathers went to school. There is nothing about it to suggest the activities of the community or to be attractive to children. Standing in an agricultural country, it is scant of land and bare of trees. I think that if a room or wing were added to every rural schoolhouse to which children could take their collections or in which they could do work with their hands, it would start a revolution in the ideals of country-school teaching even with our present teachers. Such a room would challenge every person in the community. They would want to know what relation hand training and nature-study and similar activities bear to teaching. Such a room would ask a hundred questions every day. The teacher could not refuse to answer them. It was with some such idea as this that we have erected on the Cornell campus, in connection with the College of Agriculture, a rural school building which has the ordinary teaching room and also a work room. This building, costing only \$1,800, is also designed to be comfortable and attractive and sanitary—three conditions which I fear are little present in the average rural school building. I want to see the time when some great university, wishing to contribute perhaps more than its accustomed share to the public welfare, will establish a plain, simple, redirected rural school as an example and incentive to all men.

The problem of the rural school, therefore, is not so much one of subjects as it is of methods of teaching. The whole enterprise needs to be developed natively and from a new point of view ; for, in an agricultural country, agriculture should be as much a part of the rural school as oxygen is a part of the air.

5. *Government.*—It is a question whether we do not also need a redirection in rural government. The rural people are not inert, as they are often said to be, nor are they incompetent, but the systems whereby men are organized and affairs are directed are likely to be incomplete, ineffective and to lack vitality. I think we need more active and compact rural government. I am afraid that some of our systems may be found to be antiquated and inadequate.

6. *Financial institutions.*—We all know that the farmer is disadvantaged in our financial institutions. Banks, for example, give him almost no direct aid in his business, however much they may aid those who trade in money. We need banking institutions that shall have for their main purpose the developing of the country from which they draw their trade.

7. *Churches.*—The rural church also needs radical attention. What I have said about the rural school-houses will apply very largely also to the country church buildings. They consist chiefly of a preaching room and a vestibule. They have changed very little within two generations. Concerned in too many cases with technical religion, formal piety, small and empty social duties, the country church lacks the activity and real connection with life to appeal to many of the strong personalities in its community. The country church offers a great opportunity for young men who wish to be of service to their fellows, providing they see a new horizon and desire to recast the church effort into line with daily living. Every pastor who hopes to do the greatest service in the open country should have training in an agricultural college, or in some similar institution. Religion is the natural expression of living, not a set of actions or of habits, or a posture of mind added to the daily living. The type of religion, therefore, is conditioned on the kind of living; and the kind of living is conditioned, in its turn, very largely on the physical and economic effectiveness of life.

I should like to see on every important four corners in the open country four buildings—on one a general assembly place, as a town meeting hall or a grange hall ; on another corner I should like to see a building into which the products of the community, historical mementos, books, biographies of the inhabitants, and the like could be collected and preserved. Such a building would develop a strong local interest and attach persons to the land on which they live. On another of the corners I should like to see a redirected rural school devoid of all fidgets and fads, which should be as much a native expression of the community as are the farms and the homes themselves. On the other of the four corners I should like to see a country church which would stand for aspirations and ideals, but which should have its roots, nevertheless, run deep into the indigenous affairs of the country. Everything with which men have to do needs to be spiritualized. This is much more effective for our civilization than merely to spiritualize things that we hope for.

From this brief sketch we see that the rural country needs a new direction of effort, a new outlook, and a new inspiration. Some man some day will see the opportunity and seize it. The result of his work will be simply a new way of thinking, but it will eventuate into a new political and social economy. When his statue is finally cast in bronze, he will not be placed on a prancing steed nor surrounded by any symbols of carnage or of war. He will be a plain man in citizen's clothes, but he will stand on the ground and his face will be towards the daylight.

THE OUTLOOK

Young men and young women who have the love of the open country in your hearts, there lies the opportunity for new leadership. With the great growth of urban sentiment and affairs we have overlooked the value and significance of the plain country institutions, and also of the common things of life. Other ends in life have

come into prominence and persons have been attracted by the high points and by objects and affairs remote from them. Real leadership lies in taking hold of the first and commonest problems that present themselves when you go home. I have spoken of the young man who attained to leadership because he taught the persons of his community how to spell. I know one other man who is organizing new methods of farming practices in his community. Recently he was called by President Roosevelt in consultation. Leaving this institution you will be asked more than one question when you alight from the train on your way home. Some one has a problem. Whatever it is and however small, seize it. If you have not studied the problem you, at least, ought to have the organizing ability to take hold of it and to understand it. Some one can help you. Concentrate the sentiment of the community on it. Take hold of it with a will and because you feel that it will help your fellow men. No man should enter into service for the purpose of developing leadership; he should serve for the sake of the service. Leadership is a result of good service and will come as a natural consequence. Whatever the problem and no matter how small it may seem to you, if you solve it greater opportunities await you. The opportunities will be measured only by your ability to see them and to handle them. Most of us are so blind that we never see the opportunity that lies directly before us. I bid you, then, go back into the rural country fully inspired with the idea that great opportunity for service awaits you. Here is a new thing in the world.

These are some of the visions that we see. The Governor, with great words and in the name of the people of the Empire State, has dedicated these buildings to the interests of the persons who stand on the land. We accept the responsibility. We accept it because we have seen the vision. We know that we cannot reap the harvest, but we hope that we may so well prepare the land and so diligently sow the seed that our successors may gather the ripened grain.

Joining hands with the State Department of Agriculture, with the State Experiment Station, with all other institutions, public or private, that work for the welfare of the open land, and with the men who stand on that land, we hope to contribute our part to the work that lies before us all. Our problem lies with the people both here and yonder. If there is any man standing on the land, unattached, uncontrolled, who feels that he has a disadvantage and a problem, this college of agriculture stands for that man.

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